



Observations of environmental changes and potential dietary impacts in two communities in Nunavut, Canada

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Abstract:

INTRODUCTION: Inuit from communities across the Arctic are still existing in subsistence living. Hunting, fishing and gathering is an important part of the culture and the harvested 'country food' provides sources of nutrients invaluable to maintaining the health of the populations. However, Inuit are voicing their concerns on how observed climate change is impacting on their traditional life. The objective of this study was to report on observed climate changes and how they affect the country food harvest in two communities in the Canadian Arctic. The nutritional implications of these changes are discussed and also how the communities need to plan for adaptations. **METHODS:** A total of 17 adult participants from Repulse Bay and Kugaaruk, Nunavut were invited to participate. Participants were selected using purposeful sampling methods selecting the most knowledgeable community members for the study. Inuit Elders, hunters, processors of the animals, and other community members above the age of 18 years were selected for their knowledge of harvesting and the environment. Two-day bilingual focus groups using semi-directed, unstructured questions were held in each community to discuss perceived climate changes related to the access and availability of key species. Key topics of focus included ice, snow, weather, marine mammals, land mammals, fish, species ranges, migration patterns, and quality and quantity of animal populations. Maps were used to pinpoint harvesting locations. A qualitative analysis categorizing strategy was used for analysis of data. This strategy involves coding data in order to form themes and to allow for cross-comparison analysis between communities. Each major animal represented a category; other categories included land, sea, and weather. Results were verified by the participants and community leaders. **RESULTS:** Three themes emerged from the observations: (1) ice/snow/water; (2) weather; and (3) changes in species. Climate change can affect the accessibility and availability of the key species of country foods including caribou, marine mammals, fish, birds and plants. Various observations on relationship between weather and population health and distributions of the animal/plant species were reported. While many of the observations were common between the two communities, many were community specific and inconsistent. Participants from both communities found that climate change was affecting the country food harvest in both positive and negative ways. Key nutrients that could be affected are protein, iron, zinc, n-3 fatty acids, selenium and vitamins D and A. **CONCLUSION:** Community members from Repulse Bay and Kugaaruk have confirmed that climate change is affecting their traditional food system. Local and regional efforts are needed to plan for food security and health promotion in the region, and global actions are needed to slow down the process of climate change.

Source: Ask your librarian to help locate this item.

Resource Description

Climate Change and Human Health Literature Portal

Communication:

resource focus on research or methods on how to communicate or frame issues on climate change;
surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience:

audience to whom the resource is directed

Public

Other Communication Audience: Subsistence hunters

Exposure :

weather or climate related pathway by which climate change affects health

Ecosystem Changes, Food/Water Security

Geographic Feature:

resource focuses on specific type of geography

Arctic

Geographic Location:

resource focuses on specific location

Non-United States

Non-United States: Non-U.S. North America

Health Impact:

specification of health effect or disease related to climate change exposure

Malnutrition/Undernutrition

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Population of Concern:

populations at particular risk or vulnerability to climate change impacts

Low Socioeconomic Status, Racial/Ethnic Subgroup

Other Racial/Ethnic Subgroup: Inuit

Resource Type:

format or standard characteristic of resource

Research Article

Timescale: ☒

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☒

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content